

R E M A R K S

In the Office Action dated December 13, 2007, the drawings were objected to as failing to comply with 37 C.F.R. §1.84(p)(5) because they included reference characters that were not mentioned in the description.

In response, Figure 2 has been amended to delete the prime symbol from the reference character used to designate the signal in the lower right of Figure 2. The reference symbol RMS has been cancelled from Figure 4, and reference symbols ARMS, ARMS1 and ARMS2 have been added in Figure 4.

The drawings also were objected to under 37 C.F.R. §1.85(p)(5) because they did not include reference characters mentioned in the description.

In response, reference characters S1 and S2, have been cancelled from page 14, and Figure 4 has been amended to include reference characters RMS1 and RMS2.

The drawings also were objected to as failing to comply with 37 C.F.R. §1.85(p)(4) because reference character S2 was used to designate two different items. The aforementioned cancellation of reference character S2 at page 14 overcomes this objection.

Since the specification has been amended to conform to the drawings as originally filed, no new matter is added by any of these changes.

A typographical error in claim 1 was noted, which has been corrected.

Claim 27 was objected to under 35 U.S.C. §112, second paragraph as being indefinite because the phrase "said acoustic environment analysis result" lacked antecedent basis in claim 27. The Examiner is correct that claim 27 should depend

from claim 26, rather than from claim 25, and claim 27 has accordingly been corrected in this manner.

Claims 1, 2, 5-8, 11, 12 and 15-23 were rejected under 35 U.S.C. §102(b) as being anticipated by Nakazawa. This rejection is respectfully traversed for the following reasons.

In substantiating the rejection based on Nakazawa, Applicant respectfully submits the Examiner has ignored important claim language in independent claim 1. The Examiner stated the Nakazawa reference discloses providing at least two directional microphone signals with respective weightings, by virtue of the subtractors 11A weighting one signal in the Nakazawa circuit as a positive one, and the other as a minus one. As to the remainder of this step in claim 1 of the present application, namely that the weightings define a direction-dependent sensitivity distribution having a minimum in one direction, for the respective directional microphone signals, the Examiner merely cited Figure 1B of Nakazawa. Figure 1B of Nakazawa, however, does not illustrate a direction-dependent sensitivity *distribution*, but merely illustrates the situation that occurs when subtraction of the signals from two microphones is undertaken. This is also why the assignment of minus one to one of the directional microphone signals is not a “weighting” in the sense set forth in claim 1 of the present application, since it is not “sensitive” to any direction, but is simply an arbitrary assignment of a polarity that is given to one of the incoming signals. Since every signal from the microphone that is connected to subtractor 11A in each block for each pair of microphones *always* has the *identical* value (namely minus one) assigned thereto, it is clear that this value is not dependent on anything, and is thus not sensitive to any direction, and thus does not

represent any type of distribution. Moreover, since that “weighting” (if it is a weighting at all) is constant, i.e. it never changes, it clearly does not have a minimum in one direction, as also explicitly set forth in claim 1.

This weighting of the respective directional signals with a value that defines a direction-dependent sensitivity distribution is important to each of the subsequent steps in claim 1 of the present application, namely the “assessing” step and the “comparing” step. The signals weighted in the manner set forth in the first step of claim 1 are the signals that are assessed and compared in those subsequent steps, and since the Nakazawa reference does not disclose a weighting as set forth in the first step of claim 1, even if the Nakazawa reference discloses some type of “assessing” and/or some type of “comparing”, those steps of Nakazawa are not and cannot be comparable to the “assessing” and “comparing” steps of claim 1 of the present application, because those operations in Nakazawa et al do not act on signals that have been weighted in the manner set forth in claim 1 of the present application.

Additionally, independent claim 1 has been amended to state that one of the microphone signals is phase-shifted relative to another of the microphone signals, and there is no disclosure of such phase-shifting in any of the analysis that is undertaken in the microphone system disclosed in Nakazawa.

The Nakazawa reference, therefore, does not disclose all of the elements of claim 1 as arranged and operating in that claim, and therefore does not anticipate claim 1. For the same reasons, the Nakazawa reference does not anticipate any of claims 2, 5-8, 11, 12 or 15-22, since each of those claims adds a further step or steps to the novel method of claim 1.

Since independent claim 23 is an apparatus claim that tracks the basic features and limitations of independent method claim 1, the above arguments with regard to method claim 1 apply to independent apparatus claim 23 as well. Claim 23 is not anticipated by Nakazawa et al for those same reasons.

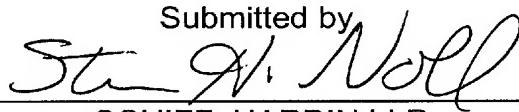
Claims 3, 4, 9, and 10 were rejected under 35 U.S.C. §103(a) as being unpatentable over Nakazawa. This rejection is respectfully traversed for the same reasons discussed above in connection with independent claim 1. Since the Nakazawa reference does not disclose all of the elements of independent claim 1, from each of claims 3, 4, 9 and 10 depend, and since there is no teaching or suggestion in the Nakazawa reference to modify the system disclosed therein to undertake the type of weighting set forth in claim 1, none of claims 3, 4, 9 or 10 would have been obvious to a person of ordinary skill in the field of microphone system design, under the provisions of 35 U.S.C. §103(a) based on the teachings of Nakazawa.

Claims 13, 14 and 24-27 were rejected under 35 U.S.C. §103(a) as being unpatentable over Nakazawa in view of Elko et al. For the reasons discussed above in connection with independent claims 1 and 23, Applicant submits that even if the Nakazawa system were modified in accordance with the teachings of Elko et al, and even if the Examiner's statements concerning the teachings of the Elko reference are correct, the subject matter of claims 13, 14 and 24-27 still would not result, in view of the absence of any disclosure or suggestion in the Nakazawa reference of the subject matter of independent claims 1 and 23.

All claims of the application are therefore submitted to be in condition for allowance, and early reconsideration of the application is respectfully requested.

The Commissioner is hereby authorized to charge any additional fees which may be required, or to credit any overpayment to account No. 501519.

Submitted by


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